

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. - 10. (canceled).

11. (Currently Amended) A continuously variable electromagnetic transmission, including a commutator-less, axial flux dynamoelectric machine provided with an input shaft and an output shaft, and control means for controlling and supplying electric power at a variable frequency to said machine, said dynamoelectric machine including a first rotor connected to said input shaft, a second rotor, connected to said output shaft, and a stator assembly, said two rotors and said stator assembly comprising discoid elements, said discoid elements of said stator assembly and of at least one of said rotors comprising active elements having windings connected to said control means and arranged to interact with the other rotor by means of magnetic flux through air gaps including axial air gaps between respective ones of said discoid elements of said rotors and said stator assembly,

wherein said transmission includes displacement means for axially displacing at least one of said discoid elements to modify the width of the axial air gap between ~~this~~ the displaced one of said discoid element ~~elements~~ and an adjacent discoid ~~element~~ element, at least one of said displaced discoid element and said adjacent discoid element being one of said active elements having windings connected to said control means.

AMENDMENT UNDER 37 C.F.R. §1.111
U.S. APPLN. NO. 10/148,214

12. (previously presented): A transmission according to claim 11, wherein said discoid elements include at least one reactive element.

13. (previously presented): A transmission according to claim 12, wherein said reactive element is a synchronous permanent magnet type element.

14. (previously presented): A transmission according to claim 12, wherein said reactive element is an asynchronous type element.

15. (currently amended): A transmission according to claim 11, wherein at least one of said first rotor ~~and/or~~ and said second rotor includes at least two discoid elements between which a discoid element of the stator or of the other rotor is located.

16. (previously presented): A transmission according to claim 11, wherein said stator assembly includes at least two discoid elements between which a discoid element of one of said rotors is located.

17. (previously presented): A transmission according to claim 11, wherein said displacement means include an axial screw mechanism driven in rotation by an electric motor.

18. (previously presented): A transmission according to claim 11, wherein said displacement means include a cam mechanism driven by an electric motor.

19. (canceled).

20. (currently amended): A transmission according to claim ~~49~~11, wherein said displaced discoid element belongs to one of said first and second rotors,

wherein the transmission further includes coupling means for mechanically connecting in rotation said displaced discoid element with said adjacent discoid element, and

wherein said coupling means ~~include~~ includes said displacement means, the connection between said two rotors being achieved via contact of said ~~respective~~ displaced and adjacent discoid ~~elements of said first and second rotor~~ elements.

21. (Currently Amended) A continuously variable electromagnetic transmission, including a commutator-less, axial flux dynamoelectric machine provided with an input shaft and an output shaft, and control means for controlling and supplying electric power at a variable frequency to said machine, said dynamoelectric machine including a first rotor connected to said input shaft, a second rotor, connected to said output shaft, and a stator assembly, said two rotors and said stator assembly comprising respective interacting elements, said interacting elements of said stator assembly and of at least one of said rotors comprising active elements having windings connected to said control means and arranged to interact with the other rotor by means of magnetic flux through air gaps including axial air gaps between respective interacting elements of said rotors and said stator assembly,

wherein said transmission includes displacement means for axially displacing at least one of said interacting elements to modify the width of the axial air gap between ~~this~~ the displaced one of said interacting element ~~elements~~ and an adjacent interacting ~~element~~ element, at least one of said displaced interacting element and said adjacent interacting element being one of said active elements having windings connected to said control means.

22. (new) The transmission according to claim 21, wherein said displacement means include a cam mechanism driven by an electric motor.

23. (new): A continuously variable electromagnetic transmission, including a commutator-less, axial flux dynamoelectric machine provided with an input shaft and an output shaft, and control means for controlling and supplying electric power at a variable frequency to said machine, said dynamoelectric machine including a first rotor connected to said input shaft, a second rotor, connected to said output shaft, and a stator assembly, said two rotors and said stator assembly comprising discoid elements, said discoid elements of said stator assembly and of at least one of said rotors comprising active elements having windings connected to said control means and arranged to interact with the other rotor by means of magnetic flux through air gaps including axial air gaps between respective discoid elements of said rotors and said stator assembly,

wherein said transmission includes displacement means for axially displacing at least one of said discoid elements to modify the width of the axial air gap between this discoid element and an adjacent discoid element, and

wherein said displacement means include a cam mechanism driven by an electric motor.